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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,514

12/11/2003

Jay Alfred Miers JR.

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EXAMINER

CINTINS, IVARS C

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 06/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/733,514	MIERS ET AL.	
	Examiner	Art Unit	
	Ivars C. Cintins	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 6 and 8-10 of copending Application Serial No. 10/315,773. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application do not preclude the presence of a membrane degasifier, because of the "comprising" language in the first line of claim 1; and therefore, these claims do not distinguish over claims 1, 5, 6 and 8-10 of copending Application Serial No. 10/315,773.

Claims 9 and 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 6 and 8-10 of copending Application No. 10/315,773 in view of Chong et al. (U.S. Patent No. 4,151,332). Claims 9 and 10 differ from claims 1, 5, 6 and 8-10 of copending Application No. 10/315,773 by reciting that the anion exchange resin is a strong base anion exchange resin (claim 9), which is macroreticular, capable of removing nitrates, and has a particle size in the range of 400 microns to 1000 microns (claim 10). Chong et al. discloses that macroreticular strong base anion exchange resins having the recited particle size are commercially available (see col. 4, lines 16 and 20-21). Also, since nitrates are anions, these anion exchange resins are inherently capable of removing nitrates. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the anion exchange resins of Chong et al. for the anion exchange resins recited in claims 1, 5, 6 and 8-10 of copending Application No. 10/315,773, since the anion exchange resins of Chong et al. are capable of removing anions from a fluid in substantially the same manner as the anion exchange resins recited in claims 1, 5, 6 and 8-10 of the copending application, to produce substantially the same results.

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Applicant should note that the above rejections are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The term "preferably" (line 3) is indefinite as to the percentage of resin having the recited particle size.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kelada (U.S. Patent No. 6,080,313) in view of Cox et al. (U.S. Patent No. 4,999,102) or Kearney et al. (U.S. Patent No. 5,354,460). Kelada discloses a water treatment system comprising a plurality of vessels containing strong base anion exchange resin (see col. 14, lines 19 and 22-23) supported on a frame (see Fig. 2). Accordingly, this primary reference discloses the claimed invention with the exception of the recited flat-headed vessel, and fractal distributors. Cox et al. and Kearney et al. disclose treatment tanks having flat heads and fractal manifold fluid distributors; and teach that such equipment produces a more even flow distribution (see col. 5, lines 34-38, of Cox et al.; and col. 6, lines 47-51 of Kearney et al.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of Kelada with the fluid distribution system of either Cox et al. or Kearney et al., in order to produce a more even distribution of liquid in this primary reference system.

Claims 2-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelada, Cox et al. and Kearney et al., as applied above, and further in view of Chong et al. The modified primary reference discloses the claimed invention with the exception of the recited resin particle size, the exact number of vessels employed (claim 4), the dimensions of the support frame (claim 6) and vessels (claims 7 and 8), and the type (i.e. macroporous) of strong base anion exchange resin employed (claim 10). Applicant should note that the intended flow rate through the vessels

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(claims 3 and 5) is not a structural limitation, and hence cannot be given weight in determining patentability of these apparatus claims. Chong et al. discloses that macroreticular strong base anion exchange resins having the recited particle size are commercially available (see col. 4, lines 16 and 20-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the anion exchange resins of Chong et al. for the anion exchange resins of the modified primary reference, since these macroreticular strong base anion exchange resins are capable of removing anions from a fluid in substantially the same manner as the strong base anion exchange resins of the modified primary reference, to produce substantially the same results. Applicant should again note that since nitrates are anions, these anion exchange resins are inherently capable of removing nitrates, as required by claim 10. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ three or four anion exchange resin vessels, instead of six, in the modified primary reference system, in order to reduce equipment costs in this system. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a support frame having the recited dimensions in the modified primary reference system, in order to ensure that this support frame is large enough to support the treatment vessels thereon. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ vessels having the recited dimensions in the modified primary reference system, in order to ensure that an adequate amount of treatment material is present in this system.


Guter (U.S. Patent No. 4,479,877) discloses removing nitrates from water with a strong base anion exchange resin (see lines 3-5 of the abstract).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (571) 272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at (571) 272-1166.

The centralized facsimile number for the USPTO is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
June 18, 2004